have the logical treatment of asphyxia of the newborn. With the infant warmly wrapped and the respiratory passages free from fluid or meconium through gentle suction, these inhalations at a pressure no greater than six millimeters of mercury usually initiate respiration. They should be continued for several hours after respiration is established. Occasionally with more marked depression higher percentages of carbon dioxid must be used at the beginning. In infants with atelectasis the carbon dioxid therapy must be continued for several days or pneumonia will supervene.

This treatment usually suffices except in patients with severe intracranial damage. Where there are extensive hemorrhages or tears into the meninges, or brain injuries, treatment is most often ineffective. Lumbar puncture may relieve pressure due to hemorrhage. Artificial respiration by means of the Drinker respirator, along with the inhalation of carbon dioxid, has been successful in a small number of patients. If adequate ventilation of the lungs is secured and life maintained over a long enough period, it seems reasonable to conclude that the depression of the respiratory center may be overcome and a normal activity be established.

Anesthetists will be interested in applying the physiological therapy not only to resuscitate the asphyxiated infant, but to all newborns as a prophylactic measure to reduce the present high neonatal deaths from asphyxia and pneumonia.

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DISCUSSION

DOROTHY A. WOOD, M. D. (1390 Seventh Avenue, San Francisco).—Resuscitation of the newborn, as Doctor Righetti brings out, is most successfully accomplished by the use of carbon dioxid and oxygen, usually in mixtures of 5-10 of CO_2 and 95-90 of O. The method of administration may vary, depending on whether the child has breathed spontaneously or not. If the child has breathed but its respirations are feeble in excursion, the low pressure cylinder with gas flowing through a wash bottle and connected by rubber tubing to a funnel, which can be placed beside the baby's face, is used. This can be continued for several hours or several days, as indicated. But if the child has made no attempt to breathe, then it is necessary to use a resuscitator which is automatically arranged to produce artificial respiration and so establish spontaneous breathing in the child. When the latter method is used, it is necessary that the respiratory passages be first freed from fluid and meconium that none of this material is forced down into the baby's lungs.

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KARL L. SCHAUPP, M. D. (490 Post Street, San Francisco).—Doctor Righetti says that manual methods are positively harmful. This statement should be modified, for if properly performed, artificial respiration by "folding maneuvre," gentle spanking of the buttocks and stimulation of the skin are of great value. One must remember, however, that the tissue of a newborn child cannot stand a great deal of trauma.

The immersion of a newborn in cold tubs has no value in resuscitation, in fact it probably is the cause of failure more often than not. Hot tubs, on the other hand, are invaluable. Their use insures maintenance of normal temperature and is an excellent stimulating agent as well.

The use of five per cent carbon dioxid and 95 per cent oxygen is, to my mind, the best method at hand at the present time. However, to be effective the mixture must reach the lungs, which means artificial respiration or positive pressure. Both of these, by mechanical means, carry with them greater danger than when gentle manipulations are made by experienced hands. This is especially true in instances where there is a little excitement and haste is being made. Valves are opened too widely or proper adjustment of mechanism is not made, and the damage which results is irreparable.

ERYTHEMA INFECTIOSUM*

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IN October, 1930, a small epidemic of erythema infectiosum occurred in Berkeley. Cases were also seen during the months of November and December. This epidemic aroused my interest, and on reviewing the literature I was surprised to find that erythema infectiosum had never been reported from California. In fact, very few epidemics have been described in America.

COMMENT ON THE BERKELEY EPIDEMIC

It is the purpose of this paper to briefly report the Berkeley epidemic and to review the findings in this exanthem in order that others may recognize the disease should it appear elsewhere in California.

Erythema infectiosum is one of the common exanthemata of childhood in Germany and Austria. It was first described in 1886 by Tschamer, who, however, believed it was an abortive type of German measles. Ten years later Escherich proved that it was a separate and distinct disease and in 1899 it was given the name erythema infectiosum by Stricker. In 1904, while working in Escherich's Clinic in Vienna, Shaw studied an epidemic of erythema infectiosum, and on his return to America in 1905 he wrote a very excellent and complete description of the disease in the *American Journal of Medical Sciences*.[1] His was the first report on this subject in the American medical literature. In 1926 Herrick reported the first epidemic of erythema infectiosum in America. His paper appeared in the *American Journal of Diseases of Children*.[2] Since then other epidemics have been reported from St. Louis, Hamburg, New York, and Ogden, Utah.[3] Although the disease was recognized thirty-five years ago in Europe and described in the American journals twenty-five years ago, it was not until four years ago that an epidemic was reported in this country. Erythema infectiosum is either uncommon in America, or it is being incorrectly diagnosed as something else.

Erythema infectiosum is a mild contagious disease of childhood, without subjective symptoms, and characterized by a maculopapular, rose-red rash, which is more pronounced on the face, legs, and arms. The etiology is unknown. Children between the ages of four and twelve are more often affected. Immunity is produced by an attack, but those immune to erythema infectiosum

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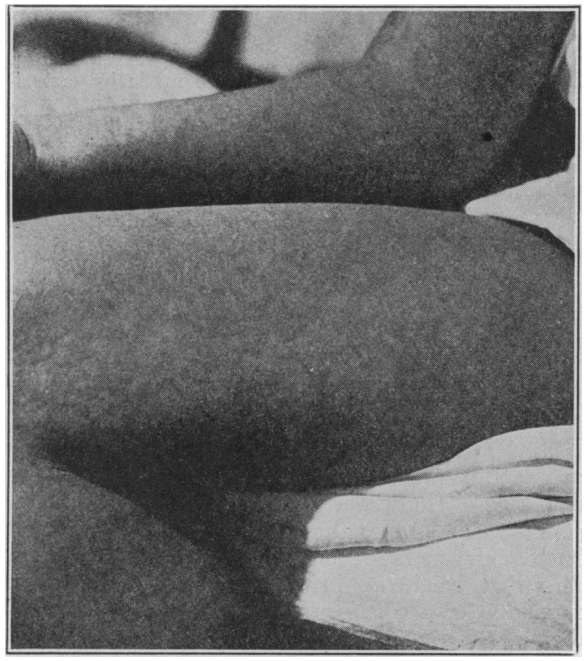

Fig. 1.—Reticular, maculopapular lesion of erythema infectiosum on the inner surface of the thigh.

will contract German measles, and vice versa. This proves that erythema infectiosum is not an abortive type of German measles, but a separate disease.

After an incubation period of from six to fourteen days, and without any definite prodromal symptoms, there appears on the face a rose-red efflorescence. The maculopapular lesions are confluent, giving to the face the appearance of a bright red blush with a circumoral pallor. The skin is swollen and hot, but there is no itching. The lesions on the face disappear in about four days.

On the second day of the disease the eruption appears on the trunk and limbs. The rash is always more pronounced on the arms and legs, and in some cases the body may be almost free from lesions. The character of the lesions on the arms and legs is diagnostic of the disease. Circinate, confluent patches appear until the whole arm or leg is covered. This gives a lacework, or reticular appearance which is very striking. Evanescence of the lesions is quite pronounced, the rash may fade out but reappear when heat or friction is applied to the skin. The disease clears up within ten days without desquamation or scarring. Complications or sequelae are absent. There is no fever and the blood and urine are normal.

In differential diagnosis one must consider first, scarlet fever. The appearance of the lesions of the face in erythema infectiosum might suggest that disease. It is quite easily ruled out, however, by the absence of fever and the normal throat and tongue. Second, measles would be considered because of the morbiliform appearance of the body lesions. Absence of conjunctivitis, coryza, and the Koplik's spots will, however, exclude that disease. The annular appearance of the lesions might suggest pityriasis rosea as a third possibility. Absence of scales and the darker color of the rash of erythema infectiosum differentiates it from pityriasis rosea. Finally one must consider a dermatitis medicamentosa and a toxic erythema. The history solves the problem of a drug eruption, but I believe it would be impossible to exclude the diagnosis of a toxic erythema unless one were informed that the disease was contagious and epidemic.

In the Berkeley epidemic we saw ten patients, and undoubtedly there were others which were not reported to the health department. All of the patients were children of school age, living in the same neighborhood and attending the same school. No attempt was made to quarantine, and although the disease is contagious it must be very feebly so, otherwise there would have been a larger epidemic. No treatment was necessary with these patients as there were no severe symptoms of any kind, and the disease cleared up spontaneously. I am told that quarantine is not enforced in Austria, and children are allowed to attend school.

Figure 1 is a picture of a patient taken on the fifth day of the disease. You will notice the reticular lesions on the arm and leg which are typical of the disease.

CONCLUSION

Although erythema infectiosum is not a serious childhood disease and is only feebly contagious, it should be recognized and correctly diagnosed. A child should not be subjected to quarantine and the loss of time from school because an incorrect diagnosis of German measles or scarlet fever has been made. Physicians should be on the lookout for erythema infectiosum in California, as we now know that the disease is prevalent here. An epidemic skin disease of children characterized by maculopapular, reticular, evanescent lesions on the arms and legs should immediately suggest to the physician erythema infectiosum.

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THE LURE OF MEDICAL HISTORY

ESSAYS ON THE HISTORY OF EMBRYOLOGY*

II.

By A. W. MEYER, M. D.
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SOME PUZZLING THINGS TO EARLY WRITERS

ONE of the most puzzling things to the earlier writers was the fact that many creatures and also they themselves existed as male and female, and that both sexes were essential for procreation. The sexual secretions such as the semen of the male and the catamenia of the female could, to be sure, not escape attention. Similar phenomena

* This is the second paper of a series of three articles. The first was printed in the December issue of California and Western Medicine, p. 447.